

In the specification on page 8, beginning on line 26, please amend the following four paragraphs as follows:

Fig. 1 illustrates the robotic arm **10** onto which the preferred probe would be mounted. Robotic arm **10** may move in degrees of freedom as indicated by arrows **40**, in addition to independent placement in the x-y plane. A plurality of probe changer assemblies **20** may be engaged to and disengaged from robotic arm **10** repeatedly as required. Mounted permanently to tool probe changer assembly **20** are two or more rigid shafts **30**, onto which the preferred probe would be installed and permitted to slide by means of low-friction bushings. Fig. 2 illustrates the preferred probe of the invention, comprising signal probe tip assembly **100**, conductive ground electrode assembly **110**, probe bracket **400**, sliding non-conductive bushings **212**, mounting collars **50**, and tool changer assembly **20** attached to the probe via compression springs **35** and rigid shafts **30**.

The components of the preferred probe tip assemblies of the invention are shown in Figs. 3, 4(a)-(e), and 5(a)-(d) which show the preferred but illustrative dimensions. Fig. 3 shows the components of the probe tip assembly which is comprised of the following: signal probe tip assembly **100** with two brass mounting screws **401**; ground ~~probe tip~~ electrode assembly **110** (preferably made of brass) with two brass mounting screws **402**; probe assembly body bracket **400** (preferably made of brass); and two non-conductive bushings **212**.

Figs. 4(a) and (b) show the preferred signal probe tip assembly **100**, comprising a coaxial cable interface **109** which mates with a corresponding connector electrically connected back through the robotic arm to the testing

instrumentation by coaxial cable and male/female connectors. The coaxial connector's ground is electrically connected to the ground flange **102**, and with the probe assembly body ~~bucket~~ bracket **400** through physical connection and through the two brass mounting screws **401** and thus with ground ~~sleeve~~ electrode assembly **110** through its mounting onto the probe assembly body bracket **400** with the two brass mounting screws **402**. The coaxial connector's signal is electrically connected with signal probe tip **104**, which is insulated from the ground flange **102**. The probe assembly body bracket **400**, has support holes which can be engaged by non-conductive bushings **212** to physically support the probe tip assembly. The preferred shape of signal probe tip **104** is shown in Figs. 4(c)-(e).

Turning now to Figs. 5(a)-(d), these show a rectangular ~~conductive~~ ground nib electrode assembly **110**, which in use is physically connected with the probe assembly body bracket **400** such that base plate **116** is physically and electrically connected to probe assembly body bracket **400**, creating a conductive ground path through sleeve **112** to ground nib/tip **114**. The dimensions of the assemblies **100** and **110** are arranged so that both nib **114** and signal probe tip **104** preferably protrude from sleeve **112** by the same distance. A 60-degree point is preferred for the ground nib. Alternatively, signal probe tip **104** can be longer in order to permit it to be compliant when contacting a board under test.

Beginning on page 10, line 11, please amend the paragraph as follows:

In order to overcome the difficulties inherent in making the signal and ground electrodes exactly the same length, as shown in Fig. 6, ~~the~~ an outer

electrode **510** can be configured as an axially spring-loaded conductor member in order to provide compliance. Alternatively, as shown in Fig. 7, the probe may be configured such that the entire connector assembly **520** is resilient rather than a single conductor. This results in movement of the signal electrode **521** instead of the ground electrode (not shown). Compliance is provided by having connector assembly **520** move along metal pins **522** in the upward direction as indicated by the arrow **535**, while contacting conductive washers **523** and conductive short-throw wave washer type springs **524**. Movement is limited by conductive stops **525** attached to base bracket **530** by conductive mounting screws **526**. Short-throw wave washer type springs **524** are preferred in that these lessen the introduction of excess inductance into the system.